

ATGAAGACAACCATTTATTTTGATACTACTGACCCATTGGGTTCTACAGTCAAAACCCAACCAAGTGCCAAC
AACACAGCCACATTEATGTCTGGGACACCATGCGAGTAGCAAATGGAACATTGGTAAAAACAATACTGAT
GACCAAATTGAGGTGACAAATGCTACTGAATTAAGTCCAGAGCATTTC AATAGGGAAAATATGCAACAAC
TCATATAGGGTTCTAGATGGAAGAAATTCCACATTAATAGATGCAATGCTAGGAGACCCCCATTGTGAT
GATTTTCAGTATGAGAATTGGGACCTCTTCATAGAAAGAAGCAGCGCTTTCAGCAATTGCTACCCATAT
GACATCCCTGACTATGCATCGCTCCGGTCCATTGTAGCATCTCAGGAACATTAGAATTCACAGCAGAG
GGCTTCACATGGACAGGTGTCACTCAAAAACGGAAGAAGTGGAGCCTGCAAAAGGGGATCAGCCGATAGT
TTCTTTAGCCGACTGAATTGGCTAACAAAATCTGGAAATTCTTACCCCATATTGAATGTGACAATGCCT
AACATAAAAAATTTCCATAAACTATACATCTGGGGGATTTCATCACCCGAGCTCAAAACAAAGAGCCAGACA
AAATTATATATCCAAGAATCAGGACGAGTAACAGTCTCAACAGAAAGAAGTCAACAAACAGTAATCCCT
AACATCGGATCTTAGGCCCTGGGTTCAGGGGTCAATCAGGCAGGATAAGCATATACTGGACCATTTGTRAAA
CCTGGAGATATTTCTAATGATAAACAGTAATGGCAACTTAGTTGCACCGCGGGGATATTTTAAATTGAGA
ACAGGGCAAAAGCTCTGTAATGAGATCAGATGCACTCATAGACACTTGTGTGTCTGAATGTATTACACCA
AATGGAAGCATCCCCAACGACAAAACCATTTCAAAATGTGAACAAAATTACATATGGAAAATGCCCCAAG
TATATCAGGCAAAACACTTTAAAGCTGGCCACTGGGATGAGGAATGTACCAGAAAAGCAAATCAGAGGA
ATCTTTGGAGCAATAGCGGGATTTCATAGAAAACGGCTCGGAAGGAATCGTTGATGGGTGGTATGGATTG
CGATATCAAAAACCTCGGAAGGAACAGGACAAGCTGCAGATCTAAAGAGCACTCAAGCAGCCATAGACCAG
ATCAATGGAAAATTAAACAGAGTCATTGAAAGGACCAATGAGAAAATTCATCAAATAGAAAAGGAATTC
TCAGAAGTAGAAGGGAGAATCCAGGATTTGGAGAAGTATGTAGAAGACACCAAAATAGACCTATGGTCC
TACAATGCAGAATTGCTGGTGGCTCTAGAAAATCAACATACAATTGACTTAACAGATCCAGAAATGAAT
AAATTATTCGAGAAGACTAGGCGCCAGTTAAGAGAAAACGCGGAAGACATGGGAGGTGGATGTTTCAAG
ATTTACCACAAATGTGATAATGCATGCCATTGGATCAATAAGAAAATGGGACATATGACCATTCATATAC
AGAGATGAAGCATTAAACAACCGATTTC AATCAAAAGTGTGAGTTGAAATCAGGCTACAAAGATTGG
ATACTGTGGATTTTCATTGCCCATATCATGCTTCTTAATTTGCGTTGTTCTAATGGCTTTCATTATGTGG
GCTTGCCRAAAAGGCAACATCAGGTGCAACATTTGCATTGA

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FIGURE 1

ATGAAGACAACCATTTATTTTGATACTACTGACCCATTGGGTCTACAGTCAAAACCCAACCAGTGGCAA
CAACACAGCCACATTTATGTCCTGGGACCCATGCCAGTAGCAAATGGAACATTGGTAAAAACAATACTG
ATGACCAAATTGAGGTGACAAATGCTACTGAATTAGTTTACAGAGCATTTCATAGGGAAAAATATGCAAC
AACTCATATAGAGTTCTAGATGGAAGAAATTGCACATTAATAGATGCAATGCTAGGAGACCCCCACTG
TGATGTCTTTTCACTATGAGAATTGGGACCTCTTCATAGAAAGAAGCAGCGCTTTCAGCAATTGCTACC
CATATGACATCCCTGACTATGCATCGCTCCGGTCCATTGTAGCATCCTCAGGAACATTGGAATTCACA
GCAGAGGGATTCACATGGACAGGTGTCACTCAAAACGGAAGAAGTGGAGCCTGCAAAAGGGGATCAGC
CGATAGTTTCTTTAGCCGACTGAATTGGCTAACAAAATCTGGAAACTCTTACCCCACTTGAATGTGA
CAATGCCTAACAATAAAAATTTTCGACAACTATACATCTGGGGGATTTCATCACCCGAGCTCAAAACAA
CAGCAAACAGAATTGTACATCCAAGAATCAGGACGAGTAACAGTCTCAACAAAAAGAAGTCAACAAAC
GATAATCCCTAATATCGGATCTAGACCGTGGGTGAGGGGTCAATCAGGCAGGATAAGCATATACTGGA
CCATTGTAAAACCTGGAGATATCTTAATGATAAACAGTAATGGCAACTTAGTTGCACCGCGGGGATAT
TTTAAATTGAAAACAGGGAAAAGCTCTGTAATGAGATCAGATGCACCCATAGACATTTGTGTGTCTGA
ATGTATTACACCAAATGGAAGCATCCCCAACGACAAACCATTTCAAAATGTGAACAAAGTTACATATG
GAAAATGCCCCAAGTATATCAGGSCAAAACACTTTAAAGCTGGCCACTGGGATGAGGAATGTACCAGAA
AAGCAAATCAGAGGAATCTTTGGAGCAATAGCGGGATTTCATAGAAAACGGCTGGGAAGGAATGGTTGA
TGGGTGGTATGGATTCCGATATCAAACTCGGAAGGAACAGGACAAGCTGCAGATCTAAAGAGCACTC
AAGCAGCCATCGACCAGATTAATGGAAAATTAAACAGAGTGATGAAAGGACCAATGAGAAATTCAT
CAAATAGAGAAGGAATTTCTAGAAGTAGAAGGGAGAATCCAGGACTTGGAGAAGTATGTAGAAGACAC
CAAAATAGACCTATGGTCTTCAATGCAGAATTGCTGGTGGCTCTAGAAAATCAACATACAATTGACT
TAACAGATGCAGAAATGAATAAATTATTGAGAAGACTAGACGCCAGTTAAGAGAAAACGCGGAAGAC
ATGGGAGGTGGATGTTTTCAAGATTTACCACAAATGTGATAATGCATGCATTGGATCAATAAGAAATGG
GACATATGACCATTACATATACAGAGATGAAGCATTAACAACCGATTTCAAATCAAAGGTGTTGAGT
TGAAATCAGGCTACAAAGATTGGATACTGTGGATTTCATTGCCATATCATGCTTCTTAATTTGCGTT
GTTCTATTGGGTTTCATTATGTGGCTTGCCAAAAGGCAACATCAGATGCAACATTTGCATTGGA

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FIGURE 2

ATGAACCCAAATCAAAAGATAATAACAATTGGATCTGCATCATTAGGAGTACTAATCCTCAAGGTCATT
CTCCATGTAGTCAGCATTATAGTAACAGTACTGGTTCTCAATAACAATGGAACAGGTCTGAACTGCAAC
GGGACGATCATAAGAGAGTACAATGAAACAGTAAGAGTAGAAAGAATCACCCAATGGTATAATACTAGT
ACAAATTGAGTACATAGAAAGATCTTCAAATGAATACTACATGAACAACACCGAACCACCTTTGTGAGGCC
CAGGGCTTTGCACCATTTTCCAAAGACAATGGAATACGAATTGGGTCGAGAGGCCATGTTTTTGTAAATA
AGAGAACCCTTTGTATCATGTTCCGCCCTCAGAATGTAGAACCCTTTTCTCACACAGGGCTCATTTACTC
AATGACAAACATTCCTAACGGCACAGTGAAGGACCGAAGTCCATATAGGACTTTGATGAGTGTCAAAATA
GGGCAATCACCTAATGTGTATCAAGCTAGGTTTGAATCGGTGGCATGGTCAGCAACAGCATGCCATGAT
GGAAAAAATGGATGACAGTTGGAGTCAAGGGCCCGACAATCAAGCAGTTGCAGTAGTGAACATATGGA
GGTGTTCGGTTGATATTATTAATTCATGGGCATGGGATATCTTAAGAACCCAAGAATCGTCATGCACC
TGCATTAAAGGAGACTGTTATTGGGTGATGACTGATGGACCGGCAACAGGCAAGCTAAATATAGGATA
TTCAAAGCAAAAAATGGAAGAATAATGGGCAGACTGATATAAGTTTCAATGGGGGACACATAGAGGAG
TGTTCTTGTTACCCCAATGAAGGGAAGGTGGAATGCATATGCAGGGACAACCTGGACTGGAACAAATAGA
CCAATTCTGGTAATATCTTCTGATCTATCGTACACAGTCCGATATTTGTGTGCTGGCATTTCCCACTGAC
ACTCCTAGGGGAGAGGATAGTCAATTCACAGGCTCATGTACAAGCCCTTTGGGAAATAAAGGATACGGT
GTAAAAGGTTTTCGGTTTCGACAAGGAACCTGACGTATGGGCCGGAAGGACAATTAGTAGGACTTCAAGA
TCAGGATTCGAAATAATAAAGATCAGGAATGGTTGGACACAGAATAGTAAAGATCAAATCAGAAGGCAA
GTGATTATTGATAACCTAAATTTGGTCAGGATATAGCGGTTCTTTACATTGCCGGTTGAACTAACAAAA
AAGGGATGTTTAGTCCCTGTTTCTGGGTTGAAATGATTAGAGGTAAACCTGAAGAAACAACAATATGG
ACCTCTAGCAGCTCCATTGTGATGTGTGGAGTAGATCATAAAGTTGCCAGTTGGTCATGGCACGATCGA
GCTATTCTTCCCTTTGACATCGATAAGATGTAA

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FIGURE 3

ATGAATCCAAATCAAAGATAATAACAATTGGATCTGCATCATTGGGAATATTAATCATCAACGTCATT
CTCCATGTAGTCAGCATTATAGTAACAGTACTGGTCCTCAATAACAATGGAACAGGTCTGAACTGCAAA
GGGACGATCATAAGAGAGTACAATGAAACAATAAGAGTAGAAAGAATTACTCAATGGTATAATACCAGT
ACAATTGAGTACATAGAGAGACCTTCAAATGAATACTACATGAACAACACCGAACCACCTTTGTGAGGCC
CAAGGCTTTGCACCATTTTCAAAGATAATGGAATACGAATTGGGTCGAGAGGCCATGTTTTTGTAAATA
AGAGAACCTTTTGTCTCATCTTCCCCCTCAGAATGTAGAACCCTTTTCTCACACAGGGCTCATTAATC
AATGACAAACATTTCTAACGGCACAGTGAAGGACCGAAGTCCATATAGGACTTTGATGAGTGTCAAATA
GGGCAATCACCTAATGTGTATCAAGCTAGGTTTGAATCGGTGGCATGGTCAGCAACAGCATGSEATGAT
GGAAAAAATGGATGACAGTTGGAGTCACAGGGCCCGATAATCAAGCAATTGCAGTAGTGAACATGGA
GGTGTTCGGTGTGATATTATTAATTCATGGGCAGGGGATATCTTAAGAACCCAAGAATCGTCATGCACC
TGCATTAAAGGAGACTGTTATTGGGTGATGACTGATGGACCGGCAAATAGGCAAGCTAAATATAGGATA
TTCAAAGCAAAAGATGGAAGAAATAATTGGGCAGACTGATATAAGTTTCAATGGGGGACACATAGAGGAG
TGTTCTTGTACCCCAATGAAGGGGAAGGTGGAATGCATATGCAGGGACAACCTGGACTGGAACAAATAGA
CCAATTCGTGTAATATCTTCTGATCTATCGTACACAGTCGGATATTTGTGTGCTGGCATTCCCACTGAC
ACTCCTAGGGGAGAGGATAGTCAATTCACAGGCTCATGTACAAGTCCTTTGGGAAATAAAGGATACGGT
GTAAAAGGTTTCGGGTTTCGACAAGGAACGTACGTATGGGCCGGAAGGACAATTAGTAGGACTTCAAGA
TCAGGATTCGAAATAATAAAAAATCAGGAATGGTTGGACACAGAACAGTAAAGACCAAATCAGAAGGCCAA
GTGATTATTGATAACCCAAATTTGGTCAGGATATAGCGGTTCTTTTACATTGCGCGTTGAACATAACAAA
AAGGGATGTTTAGTCCCCCTGTTTCTGGGTTGAAATGATTAGAGGTAAACCTGAAGAAACAACAATATGG
ACCTCTAGCAGCTCCATTGTGATGTTGTGAGTAGATCATAAAATTGCCAGTTGGTCATGGCAGGATGGA
GCTATTCTTCCCTTTGACATAGACAAGATGTAG

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FIGURE 4

ATGGCGTCTCAAGGCACCAAACGATCTTATGAGCAGATGGAAACTGATGGGGAACGCCAGAATGC
AACTGAAATCAGAGCATCTGTTCGGAAGGATGGTGGGAGGAATCGGCCGGTTTATGTTTCAGATGT
GTACTGAGCTTAAATTAAACGACCATGAAGGGCGGCTGATTTCAGAACAGCATAACAATAGAAAGG
ATGGTACTTTCGGCATTTCGACGAAAGAAGAAACAAGTACCTCGAGGAGCATCCCACTGCTGGGAA
AGACCCCTAAGAAAACGGGAGGCCCGATATACAGAAGGAAAGATGGGAAATGGATAAGAGAACTCA
TCCTCCATGATAAAGAGGAAATCATGAGGGTCTGGCGTCAGGCCAACCAATGGTGAAGATGCTACT
GCTGGTCTTACCCATATGATGATCTGGCACTCCAATCTCAATGACACCACATACCAAAGAACAAG
GGCTCTTGTTCGGACTGGGATGGATCCCAGAATGTGCTCTCTGATGCAAGGATCAACCCCTCCAC
GGAGATCTGGAGCTGCCGGTGTGTCAGTAAAGGTGTTGGAACAATGATAATGGAAGTCAATCAGG
ATGATCAAACCGCGGATAAATGATCGAAATTTCTGGAGAGGTGAAAATGGTGAAGAACCAAGAT
TGCTTATGAAAGAATGTGCAATATCCTCAAAGGGAAATTTCAAACAGCAGCACAACGGGCTATGA
TGGACCAAGTGAGGGAGGGCCGCAATCCTGGAAATGCTGAGATTGAGGATCTCATTTTCTTGGCA
CGATCAGCACTCATTTTGGAGAGGATCAGTAGCCCATAAATCATGCCTACCTGCCTGTGTTTATGG
CCTTGCAGTAACCACTGGGTATGACTTTGAGAAGGAAGGATACTCTCTGGTTGGGATGATCCTT
TCAAACCTACTCCAGAACAGCCAAATTTTCAGTCTAATCAGACCGAAAGAAAATCCAGCACACAAG
AGCCAGTTGGTGTGGATGGCATGCCATTCTGCAGCATTTGAGGACCTGAGAGTTTGAATTTTAT
TAGAGGAACAAAAGTAATCCCAAGAGGACAGTTGGCAACCAGAGGAGTGCAGATTGCTTCAAATG
AAAACATGGAGACAATAGATTCTAGCACACTCGAACTGAGAAGCAGATATTGGGCAATAAGGACC
AGAAGTGGAGGAAACACCAGTCAACAGAGAGCATCTGCAGGACAGATAAGTGTGCAACCTACTTT
CTCAGTGCAGAGAAATCTTCCCTTTGAAAGAGCAACCATTATGGCTGCATTTACTGGGAACACTG
AGCGGAGGACTTCCGACATGAGAACGGAAATCATAAGGATGATGGAAAATGCCAAATCAGAAGAT
GTGTCTTTTCAGGGGGCGGGAGTCTTCGAGCTCTCGGACGAAAAGGCAACGAACCCGATCGTGCC
TTCCTTTGACATGAGCAATGAAGGGTCTTATTTCTTCGGAGACAATGCTGAGGAGTATGACAGTT
AA

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FIGURE 5

ATGGCGTCTCAAGGCACCAAACGATCTTATGAGCAGATGGAACTGATGGGGAACGCCAGAA TGCAACT
GAAATCAGAGCATCTGTGCGGAAGGATGGTGGGAGGAATCGGCCGGTTTTATGTTTCAGATGTGTACTGAG
CTTAAACTAAACGACCATGAAGGGCGGCTGATTTCAGAACAGCATAACAATAGAAAGGATGGTACTCTCG
GCATTTCGACGAAAGAAGAAACAAGTATCTCGAGGAGCATCC CAGTGCTGGGAAAGACCCTAAGAAAACG
GGAGGCCCCGATATACAGAAGGAAAGATGGGAAATGGATGAGAGAACTCATCCTCCATGATAAAGAAGAA
ATCATGAGGATCTGGCGTCAGGCCAACAATGGTGAAGACGCTACTGCTGGTCTTACTCATATGATGATC
TGGCACTCCAATCTCAATGACACCACATACCAAAGAACAAGGGCTCTTGTTCGGACTGGGATGGATCCC
AGAATGTGCTCTCTGATGCAAGGCTCAACCCTCCCACGGAGATCTGGAGCCGCTGGTGTGCTGAGTAAAA
GGTGTGGAACAATGGTAATGGAATCATCAGAATGATCAAACGCGGATAAATGATCGGAATTTCTGG
AGAGGTGAAAATGGTGAAGAACCAGAATTGCTTATGAAAGAATGTGCAATATCCTCAAAGGGAAATTT
CAGACAGCAGCAACCGGGCTATGATGGACCAGGTGAGGGAAGGCCCAATCCTGGAAACGCTGAGATT
GAGGATCTCATTTTTCTTGGCAGCATCAGCACTTATTTTTGAGAGGATCAGTAGCCCATAAATCATGCTTA
CCTGCCCTGTGTTTTATGGCCTTGCACTAACCAAGTGGGTATGACTTTGAGAAGGAAGGATACTCTCTGGTT
GGAATTGATCCTTTCAAACCTACTCCAGAACAGCCAAATTTTCAGTCTAATCAGACCCGAAAGAAAACCCA
GCACACAAGAGCCAGTTGGTGTGGATGGCATGCCATTCTGCAGCATTGAGGACCTGAGAGTTTTGAAT
TTTATTAGAGGAACCAAAGTAATCCCAAGAGGACAGTTAGCAACCAGAGGAGTGCAAATTTGCTTCAAAT
GAAAACATGGAGACAATAGATTCTAGCACACTCGAACTGAGAAGCAAATATTGGGCAATAAGGACCAGA
AGTGGAGGAAACACCAGTCAACAGAGAGCATCTGCAGGACAGATAAGTGTGCAACCTACTTTCTCAGTG
CAGAGAAATCTTCCCTTTGAAAGAGCAACCATTATGGCTGCATTCACTGGGAACACTGAAGGGAGGACT
TCCGACATGAGAACGGAAATCATAAGGATGATGGAAATGCCAAATCAGAAGATGTGTCTTTCCAGGGG
CGGGGAGTCTTCGAGCTCTCGGACGAAAAGGCAACGAACCCGATCGTGCCTTCCTTTGACATGAGCAAT
GAAGGGTCTTATTTCTTCGGAGACAATGCTGAGGAGTTTGACAATTAA

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FIGURE 6